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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,370	02/19/2002	Mauro Costa	Costa 9-9-6-8	8130

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Docket Administrator Rm 3c 512
Lucent Technologies Inc
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EXAMINER

SWEARINGEN, JEFFREY R

ART UNIT	PAPER NUMBER
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2145

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/069,370

Applicant(s)

COSTA ET AL.

Examiner

Jeffrey R. Swearingen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20020219.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-15 are directed to a packet switched network architecture. A network architecture is not necessarily embodied within hardware. Furthermore, the specification does not seem to limit a network architecture to its hardware embodiments. It is the Examiner's express opinion that a network architecture is necessarily the design of a network, and as such can be embodied as a pencil and paper representation of the network design.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1-15 deal with a common location area being associated with a location area identifier common to both the first and second core networks. This location identifier additionally includes a core network identifier. Page 10 of the specification and Figures 4a and 4b deal with the location area identifier. However, there is insufficient information within the specification to allow one of ordinary skill in the art to currently implement the core network identifier. No details are given to explain how to differentiate between core networks. A suggestion is made that it could be accomplished using a single bit, specification, page 10, line 22, but the method of defining how to differentiate between the core networks using this bit is not explained. No explanation is given concerning switching between core networks based upon the core network identifier.

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5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claims 2-15 recite the limitation "packet switched network" in claim 1. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 2 recites the limitation "radio access network" in claim 1. There is insufficient antecedent basis for this limitation in the claim.

9. The term "a range of values" in claims 9 and 15 is a relative term that renders the claim indefinite. The term "a range of values" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The Examiner has no bases for what range of values would be appropriate, especially since according to claim 1, the value [singular form] of the location area identifier is specifically designated to *distinguish between the first and second core networks*.

10. Claims 3-4 and 10-11 refer to core networks that have *the same functionality* or *different functionality*. The Examiner is unclear what constitutes *the same functionality* or *different functionality*. In reference to the specification, page 10, line 8, the Examiner finds that a mobile terminal may have 2G or 3G functionality. The functionality is not present in a core network. The functionality does not have to be present in a mobile terminal. The functionality is not defined. Merely stating 2G or 3G functionality does not define what said functionality actually is.

11. Claims 1-15 refer to *location area[s]*. The Examiner is unclear what the metes and bounds are of the terminology *location area*.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 1-5 and 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Rune (U.S. Patent No. 6,275,706).

14. In regard to claim 1, Rune discloses *a first location area associated with a first core network and a second location area associated with a second core network, wherein at least a portion of the first and second location areas overlap thereby forming a common location area, the common location area being associated with a location area identifier common to both the first and second core networks, the location area identifier additionally including a core network identifier field having a value to distinguish between the first and second core networks.* Rune discloses a network that allows for overlapping communications standards to be used. [Abstract] Rune deals with hierarchical overlapping location areas and routing areas. [column 4, lines 9-10] Rune differentiates between the two overlapping areas by using a combination identifier which includes a location identifier and a routing identifier. [Rune, column 5, line 64 – column 6, line 12; column 6, lines 29-61]

15. In regard to claim 2, Rune is applied as in claim 1. Rune further discloses *the radio access network associated with the first location area uses the value in the location area identifier to direct packet transmission from mobile terminals in the common location area to one of the first and second core networks.* Rune uses the corresponding identifiers to determine in what location and routing areas a mobile terminal is registered to operate. [Rune, column 5, lines 29-45]

16. In regard to claim 3, Rune is applied as in claim 2. Rune further discloses *the first and second core networks have the same functionality.* Rune discloses that several location/routing areas can be served by one controller. If one controller serves several location/routing areas, then they would have the same functionality. [Rune, column 4, lines 19-21]

17. In regard to claim 4, Rune is applied as in claim 2. Rune further discloses *the first and second core networks have different functionality.* Rune discloses overlapping location/routing areas that can be

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controlled by more than one controller. If the location/routing areas overlap, then the controller for that area would necessarily be controlling a certain area, and its functionality would be different from another controller controlling a different, overlapping location/routing area. [Rune, column 4, lines 7-25]

18. In regard to claim 5, Rune is applied as in claim 2. Rune further discloses *the common location area is connected to the first and second core networks by a common radio access network*. Rune discloses that several location/routing areas can be served by one controller. [Rune, column 4, lines 19-21]

19. In regard to claim 10, Rune is applied as in claim 1. Rune further discloses *the first and second core networks have the same functionality*. Rune discloses that several location/routing areas can be served by one controller. If one controller serves several location/routing areas, then they would have the same functionality. [Rune, column 4, lines 19-21]

20. In regard to claim 11, Rune is applied as in claim 1. Rune further discloses *the first and second core networks have different functionality*. Rune discloses overlapping location/routing areas that can be controlled by more than one controller. If the location/routing areas overlap, then the controller for that area would necessarily be controlling a certain area, and its functionality would be different from another controller controlling a different, overlapping location/routing area. [Rune, column 4, lines 7-25]

21. In regard to claim 12, Rune is applied as in claim 1. Rune further discloses *the common location area is connected to the first and second core networks by a common radio access network*. Rune discloses that several location/routing areas can be served by one controller. [Rune, column 4, lines 19-21]

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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23. Claims 6-9 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rune.

24. In regard to claim 6, Rune is applied as in claim 2. Rune fails to explicitly disclose that the controllers used in overlapping location/routing areas are for different radio networks. However, Rune does disclose that the telecommunications network is designed for overlapping standards, such as UMTS and GSM/GPRS. [Rune, column 3, lines 54-65] Therefore, if the overlapping location/routing areas are controlled by more than one controller [Rune, column 4, lines 15-25], it would be obvious to one of ordinary skill in the art to include equipment to support each overlapping standard in the network, such as telecommunications standards supported by the appropriate radio network equipment.

25. In regard to claim 7, Rune is applied as in claim 6. Rune discloses overlapping location/routing areas that can be controlled by more than one controller. If the location/routing areas overlap, then the controller for that area would necessarily be controlling a certain area, and its functionality would be different from another controller controlling a different, overlapping location/routing area. [Rune, column 4, lines 7-25] It would be obvious to one of ordinary skill in the art to ensure that the functionality of the equipment in use in the radio network was appropriate for the telecommunications standard in place for the location/routing areas in question in order to allow network traffic to flow through the network.

26. In regard to claim 8, Rune is applied as in claim 2. Rune fails to explicitly disclose that a value in a location area identifier is a single bit. However, Rune does disclose using a first combination identifier coupled with a first routing area and a second combination identifier coupled with a second routing area. [Rune, column 5, line 64 – column 6, line 12] Rune states that for efficiency it is ideal to make the identifiers shorter in terms of the number of bits in the string. [Rune, column 6, lines 7-12] Basic binary math dictates that if two possible options are present, then only two values are necessary and can be treated as a single binary digit, or bit. Therefore it would be obvious to one of ordinary skill in the art to utilize only one bit to differentiate between the two different areas in the Rune invention for purposes of increasing efficiency.

27. In regard to claim 9, Rune is applied as in claim 2. Rune fails to explicitly disclose use of a range of values to differentiate between location areas in the identifier. However, Rune does disclose using a first combination identifier coupled with a first routing area and a second combination identifier coupled

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with a second routing area. [Rune, column 5, line 64 – column 6, line 12] In order to differentiate between the different routing areas, some sort of value must be present to allow the system to choose which area to use. A range of values can constitute a single bit, which is all that is necessary to differentiate between two areas. Therefore it would be obvious to one of ordinary skill in the art to utilize a range of values to differentiate between the two different areas in the Rune invention for purposes of making the invention scalable to allow for more areas to be added.

28. In regard to claim 13, Rune is applied as in claim 1. The additional limitations of claim 6 are the same as the additional limitations of claim 13. Therefore the obviousness rejection of claim 6 is equally applicable against claim 13.

29. In regard to claim 14, Rune is applied as in claim 1. The additional limitations of claim 14 are the same as the additional limitations of claim 8. Therefore the obviousness rejection of claim 8 is equally applicable against claim 14.

30. In regard to claim 15, Rune is applied as in claim 1. The additional limitations of claim 15 are the same as the additional limitations of claim 9. Therefore the obviousness rejection of claim 9 is equally applicable against claim 15.

Conclusion

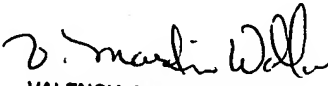
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571) 272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin-Wallace can be reached on 571-272-6159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JRY


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